

* For Examiner's Reference

We Claim:

1. An intake device having an intake channel (9) that includes an intake channel section (3) comprising:

5 a butterfly valve (7, 24, 37) pivotably mounted in the intake channel section (3);

a first dividing wall (10, 27, 44) disposed downstream of said butterfly valve and dividing said intake channel section into an air duct (4) and a mixture duct (5) wherein said air duct (4) has a flow cross-section that is greater than a flow cross-section of said mixture duct (5); and

10 a fuel jet (6) that opens into said mixture duct (5).

2. An intake device according to claim 1, wherein said flow cross-section of said air duct (4) is 55 to 90% of an overall flow cross-section of said intake channel section (3).

15 3. An intake device according to claim 1, wherein a longitudinal axis (12, 29, 42) of a butterfly valve shaft (8, 25, 38) is spaced from a longitudinal axis (11) of said intake channel section (3) by a distance of 0.5 to 5 mm, and wherein said butterfly valve (7, 24, 37) is in particular asymmetrically fixed in position on said butterfly valve shaft.

20 4. An intake device according to claim 1, wherein a central longitudinal axis (15, 28, 45) of said first dividing wall (10, 27, 44) is spaced from a longitudinal axis (11) of said intake channel section (3) by a distance that is (5) to 30% of a diameter of said intake channel section.

25 5. An intake device according to claim 1, wherein said first dividing wall (10, 27, 44) has a thickness that is 10 to 40% of a diameter of said intake channel section (3).

6. An intake device according to claim 1, wherein said butterfly valve (7, 24, 37) is disposed on a side of a butterfly valve shaft (8, 25, 38) that faces said air duct (4).

5 7. An intake device according to claim 1, wherein a second dividing wall (16) divides said intake channel section (3) upstream of said butterfly valve (7), and wherein said second dividing wall (16) is spaced from a longitudinal axis (12) of a butterfly valve shaft (8) by a distance that corresponds approximately to a radius of said butterfly valve shaft.

10 8. An intake device according to claim 7, wherein said radius of said butterfly valve shaft (8) is approximately 15 to 40% of a diameter of said intake channel section (3).

15 9. An intake device according to claim 1, wherein a second dividing wall is disposed upstream of said butterfly valve (37) and is a choke valve (39) that is pivotably mounted in said intake channel section (3) wherein said choke valve is asymmetrically mounted on a choke shaft (40), and wherein said choke valve (39) has a rectangular shape.

20 10. An intake device according to claim 9, wherein said choke valve (39) and said butterfly valve (37) in open positions thereof, are inclined relative to a longitudinal axis (11) of said intake channel section (3) and rest against one another in an overlap area (46).

25 11. An intake device according to claim 1, wherein a cross-section reducing ramp (41) is disposed in said mixture duct (5), and wherein in an open position of said butterfly valve (37), said ramp (41) is spaced from said butterfly valve by a distance that is 10 to 40%, especially 20 to 30%, of a diameter of said intake channel (3).

12. An intake device according to claim 1, wherein in said mixture duct (5), said butterfly valve (7, 24, 37) opens in a direction of flow (20) through said intake channel (3)

13. An intake device according to claim 1, which includes a fuel metering system (21) for supplying said fuel jet (6) wherein said fuel metering system adjusts a quantity of fuel supplied to said mixture duct (5) as a function of a position of said butterfly valve (7)

14. An intake device according to claim 1, wherein said fuel jet (6) opens into said mixture duct (5) downstream of said butterfly valve (7, 24, 37)

15. An intake device according to claim 1, wherein said fuel jet (6, 52, 53, 67) opens into said mixture duct (5) in a carburetor (1, 51, 66).

16. An intake device according to claim 1, wherein downstream of said butterfly valve (7) a portion of said intake channel section (3) is formed in a flange (13) and wherein said fuel jet (6', 68) opens into said flange.

17. An intake device according to claim 16, wherein said fuel jet (6') is an idling jet, and wherein a main jet (67) is disposed upstream of said idling jet.

18. An intake device according to claim 16, wherein said first dividing wall (10, 27, 44, 56, 59) which is disposed downstream of said butterfly valve (7) is monolithically formed with said flange (13).

19. An intake device according to claim 16, wherein said flange (13) is a connecting flange.

20. An intake device according to claim 16, wherein said flange (13) is an intake flange of an internal combustion engine.